

Project Leader Approval Checklist

N-number of this completed checklist: ISO TC184/SC4/ wg10N340 _____

Name of person who completed this checklist Matthew West

Date this checklist was completed 2001-06-08

Document reviewed

Standard ISO18876

Part 1

Edition 1

Stage Committee Draft

N-number: ISO TC184/SC4/WG10 N337

Requirements for approving and submitting to the Secretariat documents at any stage of approval may be found at <http://www.nist.gov/sc4/www/stdsumm.htm>

The current versions of supporting documents for SC4 part developers may be found at <http://www.nist.gov/sc4/www/necsdocs.htm>

For each question, check the box that applies. If "N/A" (not applicable) is checked, explain the reason the question is not applicable in the comment field.

PROJECT TEAM REVIEW

YES NO N/A

- | | |
|---|---|
| <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | <p>1. Members of the project team and reviewers are adequately trained to perform the roles they are assigned.</p> <p>Comments:</p> |
| <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | <p>2. The completed internal review documents submitted by the project team to the project leader are dated and signed by the project team member assigned to Quality Committee and the person who performed the review.</p> <p>Comments:</p> |
| <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | <p>3. The project team has used the task assignments from QC Procedures for Internal Review. The N-number of the version used is <u>ISO TC184/SC4/QC N110</u>.</p> <p><input type="checkbox"/> All applicable tasks are completed for the part class as stated in Table 1 of Procedures for Internal Review.</p> <p><input checked="" type="checkbox"/> Some tasks were omitted because they were unclear or did not apply. Feedback regarding improvements to the Procedures for Internal Review was sent to the QC exploder (qc@cme.nist.gov).</p> <p>Comments: No EXPRESS in this part.</p> |
| <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> | <p>4. The project team, in the summary report, has collected, reviewed, and recorded all SEDS that affect project development.</p> <p>Comments:</p> |

YES NO N/A

- ☒ ☐ ☐ 5. All issues and errors identified in the internal review have been resolved or recorded.
☒ All issues have been resolved and are closed.
☐ Issues remain open and are documented in the internal review summary report.
Comments:

PART STAGE

- ☒ ☐ ☐ 6. This part is at stage:
☐ Stage 6 (IS).
☐ Stage 5 (FDIS).
☐ Stage 4 (DIS).
☒ Stage 3 (CD).
☐ Stage 2 (WD) Industry Review.
Comments:

ISSUE LOG

- ☐ ☐ ☒ 7. The issue log is up-to-date for the stage of the part:
☐ At Stage 3, there is evidence of active issue resolution (open issues are permitted).
☐ At Stage 4, there are no open technical issues (though there may be open editorial issues).
☐ At Stage 5, there are no open issues.
Comments: No formal issues log exists for this document. Changes to the document have been based on minuted agreements from WG10 meetings.
- ☐ ☐ ☒ 8. The issue log is in the proper format for the stage of the part:
☐ At Stage 3, the issue log is legible, easy to read, and complete.
☐ At Stage 4 and Stage 5, the issue resolutions are recorded using ISO Form 13B.
(See <http://www.nist.gov/sc4/forms/form13b/>.)
Comments: No formal issues log exists for this document. Changes to the document have been based on minuted agreements from WG10 meetings.

COPYRIGHT

If the part is at Stage 4 or beyond, check the following items:

- ☒ ☐ ☐ 9. The copyright symbol and statement are on the bottom of page ii. They are correct and as specified by the Supplementary Directives for the Drafting and Presentation of ISO 10303 (SD). (See 4.2.2 of the SD.)
Comments:
- ☒ ☐ ☐ 10. The correct copyright symbol is on page 1, and it is as specified by the SD. (See 4.1.4 of the SD.)
Comments: Copyright is present on all pages as per QC N180

YES NO N/A

- ☐ ☒ ☐ 11. Each page of the document has the correct page header with the copyright symbol as specified by the SD. (See 4.1.1 of the SD.)
- Comments: Each page has the correct page footer with copyright, as per QC N180

COVER PAGE

- ☐ ☐ ☒ 12. The cover page has the correct format, structure, and content. (See 4.2.1, annex A of the SD, <http://www.nist.gov/sc4/editing/cover>, and http://www.nist.gov/sc4/editing/cover/cov_read.htm.)
- Comments: : ISO 10303 format of cover page does not apply (although that used here is equivalent)
- ☒ ☐ ☐ 13. The N-number is present, identifies a unique document, and matches the WG document log.
- ☐ The document is the initial publication; the "Supersedes" field is blank.
- ☒ The document has been released previously; the "Supersedes" field contains the N-number of the last published version.
- Comments:
- ☒ ☐ ☐ 14. The date is present with the format YYYY-MM-DD.
(See http://www.nist.gov/sc4/editing/cover/cov_read.htm.)
- Comments:
- ☒ ☐ ☐ 15. The part number and title have been verified with the SC4 Secretariat as being the same as that registered by TC 184/SC4 for the project.
- Comments:
- ☒ ☐ ☐ 16. The title matches the title listed by the SC4 Secretariat and registered with ISO for the project.
- Comments:
- ☒ ☐ ☐ 17. The ballot stage and ballot cycle are indicated.
(See http://www.nist.gov/sc4/editing/cover/cov_read.htm.)
- Comments:
- ☒ ☐ ☐ 18. The abstract is present, concise, unambiguous, supports the scope of the part, does not arbitrarily introduce new wording beyond that in the scope statement.
- Comments:
- ☒ ☐ ☐ 19. The keywords are appropriate for searches by interested parties.
- Comments:
- ☒ ☐ ☐ 20. The Project Leader and Part Editor are specified and are as recorded by TC184/SC4; names, addresses, telephone/FAX numbers, and e-mail addresses are present.
- Comments: Data is present and correct; however, some of the information in the SC4 database is out of date
- ☒ ☐ ☐ 21. The "Comments to Reader" field contains the required text and other text appropriate for the audience of the part during this ballot cycle.
(See http://www.nist.gov/sc4/editing/cover/cov_read.htm.)
- Comments:
- ☒ ☐ ☐ 22. The "Copyright Notice" field of the cover contains the required text for the ballot release Stage of the part. (See http://www.nist.gov/sc4/editing/cover/cov_read.htm.)

NOTE: WD and CD copyright statements are different than DIS and FDIS.

Comments:

YES NO N/A

CONTENTS, ANNEXES, FIGURES, AND TABLES

- | | | | |
|-------------------------------------|--------------------------|--------------------------|---|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 23. The Table of Contents (TOC) starts on page iii (right-hand side of the document) as specified by the SD. <i>(See 4.2.2 of the SD.)</i>
Comments: |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 24. The TOC is complete and contains the information as specified by the SD. <i>(See 4.2.2 and 8.1 of the SD.)</i>
Comments: |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 25. All figures and tables have a title and are presented in the format as specified by the SD. <i>(See 4.5.1 and 4.5.2 of the SD.)</i>
Comments: |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 26. The Index is present and starts on the page specified by the TOC as specified by the SD. <i>(See 4.2. of the SD.)</i>
Comments: |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 27. There are no font sizes smaller than 2.5mm in height or 8pt size appear in any of the text, diagrams, figures, or tables as specified by the SD. <i>(See 4.1.3 of the SD.)</i>
Comments: |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 28. All notes and examples in the text of the document appear as specified in the SD. <i>(See 4.5.3 and 4.5.4 of the SD.)</i>
Comments: |

FOREWORD AND INTRODUCTION

- | | | | |
|-------------------------------------|--------------------------|--------------------------|--|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 29. The Foreword starts on a new page and the required text is as specified by the SD. <i>(See 4.2.3.2 of the SD.)</i>
Comments: |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 30. The list of parts documented in the Foreword is current. For 10303 parts reference SOLIS at http://www.nist.gov/sc4/editing/step/titles and as specified by the SD. <i>(See 4.2.3.2 of the SD.)</i>
The titles were downloaded from SOLIS on _____ (date).
Comments: URL references www.iso18876.org |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 31. The Introduction starts on a new page. <i>(See 4.2.4 of the SD and 6.1.4 of ISO/IEC Directives Part 3:1997.)</i>
Comments: |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 32. The Introduction states the required knowledge-base necessary for understanding this part.
Comments: |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 33. The Introduction explains the industry need for this part and does not imply a broader or narrower focus of types of information covered than specified by the Scope statement.
Comments: |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 34. The Introduction states the purpose of this part and is unambiguous, concise, and understandable.
Comments: |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 35. The Introduction identifies the application domain for using this part.
Comments: |

YES **NO** **N/A**

- ☒ ☐ ☐ 36. Relationships with other parts under SC4 control have been identified and referenced within this part as specified by the SD. (*See 4.2.4 of the SD.*)
- Comments:

SCOPE

- ☒ ☐ ☐ 37. The Scope for the part begins on page 1 (right-hand side of the document) and the format of the page is correct as specified by the SD, including the header that is different from all other page headers for the part. (*See 4.1.4 and 4.3.1.1 of the SD, and QC N151.*)
- Comments:

- ☒ ☐ ☐ 38. The required text is as specified by the SD. (*See 4.3.1.2., 6.2, 7.1, and 8.2 of the SD.*)
- Comments:

- ☒ ☐ ☐ 39. The Scope statement is complete and defines the extent of the subject matter as specified by the SD (*See 4.3.1.2., 6.2, 7.1, and 8.2 of the SD and for APs 4.1 of Guidelines for the development and approval of STEP application protocols (APG).*)
- Comments:

- ☐ ☐ ☒ 40. Types of data supported are easily identifiable from the Scope statement.
- Comments:

- ☐ ☐ ☒ 41. Discipline views that are supported are easily identifiable from the Scope statement.
- Comments:

- ☐ ☐ ☒ 42. Life-cycle stages supported are easily identifiable from the Scope statement.
- Comments:

- ☐ ☐ ☒ 43. Types of data not supported are easily identifiable from the Scope statement.
- Comments:

- ☐ ☐ ☒ 44. Discipline views that are not supported are easily identifiable from the Scope statement.
- Comments:

- ☐ ☐ ☒ 45. Life-cycle stages not supported are easily identifiable from the Scope statement.
- Comments:

- ☒ ☐ ☐ 46. All in-scope and out-of-scope aspects of the part are identified and properly separated as specified by the SD. (*See 4.3.1.2 of the SD.*)
- Comments:

- ☒ ☐ ☐ 47. The scope as stated in the original New Work Item for this part:
- ☐ has been increased. A New Work Item will be initiated on _____ (date).
☐ has been decreased. A New Work Item will be initiated on _____ (date).
☐ is affected by a SEDS report. The SEDS report(s) are: _____ (date).
☒ is unchanged.
- Comments: Wording of the scope statement has been refined but the scope itself is unchanged.
Suggest that the SC4 database should be updated.

YES NO N/A

- | | | | |
|-------------------------------------|--------------------------|-------------------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <p>48. The working group convener and the SC4 Secretariat have been notified of the Scope changes by this Project Leader:</p> <p><input type="checkbox"/> Yes. The notification occurred on _____ (date).</p> <p><input checked="" type="checkbox"/> The Scope is unchanged.</p> <p>Comments:</p> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <p>49. The Scope statement is complete, concise, unambiguous, and conveys the extent of the part in terms that are understandable to an engineering user, an application domain expert, and a software implementor.</p> <p>Comments:</p> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <p>50. No user requirements or definitions appear in the scope statement as specified by the SD and ID3. (<i>See 4.6 of the SD and 6.6.6 of ISO/IEC Directives Part 3:1997.</i>)</p> <p>Comments:</p> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <p>51. All issues related to the Scope have been resolved.</p> <p>Comments: Scope issues addressed in working sessions of the project and of WG10</p> |

NORMATIVE REFERENCES

- | | | | |
|-------------------------------------|--------------------------|-------------------------------------|---|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <p>52. All standards and technical specifications referenced in normative text (including other SC4 standards) have been identified in clause 2 as specified by the SD. (<i>See 4.3.1.3, 6.3, 7.2, and 8.3 of the SD.</i>)</p> <p>Comments:</p> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <p>53. References to normative sources are only found in the normative text of this part. No normative references appear in NOTES, EXAMPLES, or informative annexes.</p> <p>Comments:</p> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <p>54. If this part is at Stage 4 (DIS) or higher, all ISO standards normatively referenced are also at Stage 4, or higher.</p> <p>Comments:</p> |

DEFINITIONS, SYMBOLS, AND ABBREVIATIONS

- | | | | |
|--------------------------|-------------------------------------|-------------------------------------|--|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <p>55. All terms used in this part from other ISO standards (including TC 184/SC4 parts) are listed under a subclause for each part or standard in clause 3 as specified by the SD. (<i>See 4.3.2.1 of the SD.</i>)</p> <p>Comments: terms are listed in alphabetical order. Where relevant a reference to the standard they are taken from is placed underneath</p> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <p>56. All definitions of terms that conflict with current definitions of the same term(s) defined in other TC 184/SC4 parts have been defined in clause 3. A NOTE has been included with the definition to alert the reader of the difference.</p> <p>Comments:</p> |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <p>57. Terms specific to the application domain of this part that are not found in other publicly available standards have been identified and defined in clause 3.x, "Other terms and definitions."</p> <p>Comments: See answer to Q55.</p> |

YES NO N/A

- ☐ ☐ ☒ 58. Terms defined in "Other terms and definitions" are unambiguous, concise, and understandable to the end-user of this part. All defined terms have non-circular definitions. A definition is considered circular when the term being defined appears in the definition.

Comments:

- ☒ ☐ ☐ 59. All abbreviations are recorded in a subclause in clause 3 as specified by the SD. Note: Abbreviations are strongly discouraged in ISO parts. When they are permitted, document them as specified by the SD. (See 4.3.2.2 of the SD.)

Comments:

EXPRESS

- ☐ ☐ ☒ 60. The EXPRESS schemas within this part have been successfully compiled. The compilers and versions used were the following: (Suggestion: use multiple compilers.)

Compiler	Version	Platform
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Comments:

- ☐ ☐ ☒ 61. There is a one-to-one correspondence for each EXPRESS entity and type between the schema and the EXPRESS-G diagrams.

Comments:

AAM (ISO 10303 AP ONLY)

- ☐ ☐ ☐ 62. All inputs, controls, outputs, mechanisms (ICOMs), and activities this part defines and their definitions are sufficient for the domain expert and software implementor as specified by the SD and APG. (See 8.8.2.1.1 of the SD and 4.7 of the APG.)

Comments:

- ☐ ☐ ☐ 63. All out-of-scope activities and ICOMs are identified and are indicated with an asterisks as specified by the SD. (See 8.8.2.1.1 and 8.8.2.1.2 of the SD and 4.7 of the APG.)

Comments:

- ☐ ☐ ☐ 64. Each in-scope activities and ICOMs are traceable to the scope. (See clause 5 of the APG.)

Comments:

- ☐ ☐ ☐ 65. The entire AAM has been reviewed, is understood, and is approved by appropriate industry experts. Evidence to support this approval is documented in the AP Validation Report as required by the APG. (See 5.6 and 5.6.1 of the APG.)

Comments:

APPLICATION REFERENCE MODEL (ISO 10303 AP ONLY)

- ☐ ☐ ☐ 66. The Introduction for this part contains a data planning model as specified by the APG. (See clause 4 of the APG.)

Comments:

YES NO N/A

- | | | | |
|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <p>67. All units of functionality (UOFs) are defined and have been reviewed, are understood, and are approved by appropriate industry experts as required by the APG. (<i>See clauses 4 and 5 of the APG.</i>)</p> <p>Comments:</p> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <p>68. Each UOF has a name appropriate for its functionality and is unique across the set of UOFs and application objects (AOs) in this part as specified by the SD and the APG. (<i>See 8.5.1 of the SD and 4.4.1 and 5.3 of the APG.</i>)</p> <p>Comments:</p> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <p>69. All UOFs are within the scope of this part.</p> <p>Comments:</p> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <p>70. UOF harmonization, with other ISO 10303 parts with similar UOF requirements and identical UOF names, is complete.</p> <p><input type="checkbox"/> None apply</p> <p><input type="checkbox"/> UOFs used from other APs are listed below.</p> <p>UOFs used:</p> <p>Comments:</p> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <p>71. There is a one-to-one correspondence between the set of AOs listed in the UOFs in clause 4.1 and the set of AOs defined in clause 4.2.</p> <p>Comments:</p> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <p>72. All application objects (AO) are defined, have been reviewed, are understood, and are approved by appropriate industry experts.</p> <p>Comments:</p> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <p>73. There is a one-to-one correspondence between the AOs defined in clause 4 and the ARM diagrams in annex G of this part.</p> <p>Comments:</p> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <p>74. Each AO name is unique across the set of 10303 application protocols and does not share its name with an attribute name or UOF name within this part. An exception to this rule is management resource subtypes. The following parts/subtype names are shared:</p> <p>Comments:</p> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <p>75. No integrated resource (IR) term or definition is found in the information requirements clause except by written request from the industry review experts to which this application protocol is designed to assist.</p> <p>Comments:</p> |

MAPPING TABLE (ISO 10303 AP ONLY)

- | | | | |
|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <p>76. Interpretation of the ARM has been performed by qualified resources. The interpretation was performed by the following individuals:</p> <p>Comments:</p> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <p>77. The complete interpretation report is included with the AP Validation Report as required the APG. (<i>See 5.4.1 and 5.6.1 of the APG.</i>)</p> <p>Comments:</p> |

YES NO N/A

- ☐ ☐ ☐ 78. All pruning is identified and the rationale for why such pruning is required is documented in subclause 5.2.1 Fundamental concepts and assumptions of this part as specified by the APG. (See 4.5 and 5.4 of the APG.)
Comments:
- ☐ ☐ ☐ 79. Each application element (AE), attribute and assertion from clause 4 appears at least once in the mapping table.
Comments:
- ☐ ☐ ☐ 80. Each source specified in the mapping table is accurate for the reference path stated and is according to the Guidelines for the development of mapping tables (MTG), APG, and SD. (See document MTG, 4.5 of the APG and 8.6 of the SD.)
Comments:
- ☐ ☐ ☐ 81. Each rule in the mapping table is found in clause 5.2.n and is identified at the end of the mapping table.
Comments:
- ☐ ☐ ☐ 82. Each AE has a complete entry in the "reference path" column of the mapping table. The phrases "NO MAPPING" or "PARTIAL MAPPING" do not appear in the mapping table of this part.
Comments:

AIM SHORT FORM (ISO 10303 AP AND AIC ONLY)

- ☐ ☐ ☐ 83. The schema and entity information in the USE FROM statements in the short form and the "source" and "reference path" in the mapping table agree with the integrated resources.
Comments:
- ☐ ☐ ☐ 84. The USE FROM statements appear at the beginning of the schema and are identified to the IR from which they come as specified by the SD. (See 8.6.2 of the SD.)
Comments:
- ☐ ☐ ☐ 85. AIC requirements are satisfied for this part.
☐ The appropriate AICs have been correctly referenced and used.
☐ No AIC(s) is/are required.
Comments:
- ☐ ☐ ☐ 86. New AIC(s) is/are under development as a New Work Item.
Comments:
- ☐ ☐ ☐ 87. The short form contains all application-specific entities, rules, and functions.
Comments:
- ☐ ☐ ☐ 88. The short form has been compiled. The compilers and versions used were the following:
(Suggestion: use multiple compilers.)

Compiler	Version	Platform
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Comments:

YES NO N/A

CONFORMANCE REQUIREMENTS (ISO 10303 AP ONLY)

- ☐ ☐ ☐ 89. Each conformance class is identified in a table in clause 6 as specified by the SD and the APG. (See 8.7 of the SD and 4.6 and 5.5 of the APG.)

Comments:

REQUIRED SUPPORTING DOCUMENTATION (ISO 10303 AP ONLY)

- ☐ ☐ ☐ 90. The Validation Report is complete for the stage of the part in question as required by the APG. (See 5.6 of the APG.)

Comments:

- ☐ ☐ ☐ 91. Annex L contains usage scenarios and usage tests for the part as specified by the SD and the APG. The Usage Scenario annex is optional but you are strongly encouraged to include it. (See 8.8.3 of the SD and 4.7 5.6.1 of the APG.)

☐ Yes. The usage scenarios reflect the scope of the part.

☐ No. Convener and project team have agreed that usage scenarios are not needed at this stage for this part.

Comments:

- ☐ ☐ ☐ 92. There is an annex containing technical discussions about this part (Annex M if there is a Usage Scenarios annex; Annex L otherwise). The technical discussions annex is optional, but you are strongly encouraged to include it. (See 8.8.3.2 of the SD and 4.7 of the APG.)

☐ Yes. The Technical Discussion annex is concise and contains useful and clarifying information about this part.

☐ No. The convener and project leader have agreed that technical discussions are not needed at this stage for this part.

Comments:

- ☐ ☐ ☐ 93. The Abstract Test Suite that corresponds to this part is appropriately complete for the part's stage:

☐ At Stage 3, the test purposes are in work.

☐ At Stage 5, the abstract test suite is complete.

Comments:

APPROVAL

I have reviewed and verified the items on this document.

Matthew West
Name

2001-06-08
Date